

Lactic Acid p 88 text

Define Blood Lactate Threshold (Anaerobic Threshold)

How Does This effect the performance of an athlete?

How does anaerobic threshold compare between elite and novice athletes?

Nov 23-7:08 AM

What approach can coaches use to improve the threshold for novice athletes?

What is the role of rest in interval training?

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Lactic Acid p 89 text

Define Blood Lactate Threshold (Anaerobic Threshold)

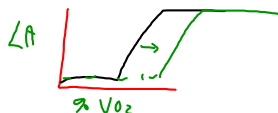
point at which Blood LA increases rapidly

How Does This effect the performance of an athlete?

increase in LA would create muscle pain & fatigue, hinder enzyme activity

How does anaerobic threshold compare between elite and novice athletes?

Elite athletes do not reach their anaerobic threshold until they reach a higher % Vo2 -shifted to the right



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What approach can coaches use to improve the threshold for novice athletes?

Intervals

Work
Rest
Work

What is the role of rest in interval training?

Rest → to push to threshold but never accumulate LA

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Removal of lactic Acid Following Exercise

What happens to the lactic acid in your body after vigorous exercise? (3)

- pain & fatigue (toxic)
- lack of contraction strength & speed of response
- enzyme impairment

Why does lactic acid breakdown readily with light exercise after an event? Give examples

35 %vo2-jog - delivers O₂ (breakdown LA)

What happens to lactic acid after vigorous activity?

LA + O₂ ⇒ pyruvic Acid ⇒ Acetyl CoA

Why does lactic acid breakdown readily with light exercise following an event? Give Examples

Does Lactic acid break down in elite athletes quicker than in novice athletes?

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Does Lactic acid break down in elite athletes quicker than in novice athletes?

LA removed in identical biological processes

Active Recovery-30% VO₂

removes LA much more efficiently therefore no byproducts the next day

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EPOC Excess Post Oxygen Consumption

excess oxygen, ventilation and thermo-regulation post activity

-removal of lactic acid, lower base body temperature, slow down heart rate and breathing cadence

-elite level athletes efficiently utilize this phenomena much quicker than novice athletes

Oct 22-12:42 PM

$$\begin{aligned}
 &220 - \text{age} \\
 &220 - 17 = 203 \text{ bpm} \\
 &50\% \text{ TTHR} = 78 + 0.5 [203 - 78] \\
 &= 78 + 62.5 \\
 &= 140.5 \\
 &\sim 141
 \end{aligned}$$

$$\begin{aligned}
 &70\% \text{ TTHR} = 78 + 0.7 [203 - 78] \\
 &= 78 + 0.7 [125] \\
 &= 78 + 87.5 \\
 &= 166
 \end{aligned}$$

$$\begin{aligned}
 &85\% \text{ TTHR} = 78 + 0.85 [203 - 78] \\
 &= 78 + 0.85 [125] \\
 &= 78 + 106.25 \\
 &\sim 184
 \end{aligned}$$

Nov 1-12:25 PM

Oct 23-11:14 AM